



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,842	02/26/2002	Phil J. Abercrombie	PAS-163	1752

959 7590 03/31/2005
LAHIVE & COCKFIELD, LLP.
28 STATE STREET
BOSTON, MA 02109

EXAMINER

OPIE, GEORGE L

ART UNIT	PAPER NUMBER
----------	--------------

2194

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,842	Abercrombie et al.	
	Examiner	Art Unit	
	George L. Opie	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) ☐ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ☐ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) ☐ is/are objected to.
- 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ☐ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ☐ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ☐.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ☐.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). ☐.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☒ Other: Text Docs for USP6,614,430 USP6,542,937

Art Unit: ~~2126~~ 2194**DETAILED ACTION**

1. Request for copy of Applicant's response on floppy disk:
Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

2. Applicant should update the related Application information
The cross-referenced Application information must accurately reflect the relevant status of the related cases. Applicant should carefully review the related applications and provide appropriate amendments to reflect the current information on each referenced patent application.

3. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*.

4. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 19-21, 38, 49-51 and 53 are rejected under 35 USC § 103(a) as being unpatentable over Rappoport (U.S. Patent 6,614,430).

Art Unit: 2126

As to claim 1, Rappoport (p6 21-30) teaches a method of communicating between a first computer aided design (CAD) application (source CAD model) and a second CAD application (target CAD format) comprising: storing native data (source CAD ... specification data) and a sub-set of native data (partial specification data, p16 25-47) providing a component having an application program interface (API) being accessible by the second CAD application (with the target CAD system ... "API" that allows extraction and ... supports inter-process communication, p14 7-20) and the component conveying the sub-set of native data to second CAD application (to a target system's data model ... by using an API, p10 15-30). Rappoport does not explicitly disclose the plug-in to implement the communications, however, it would have been an obvious modification to apply the extraction API through a plug-in for enabling access to the first CAD data by the second Cad application, because a plug-in module would facilitate the adaptive extensions for communicating the specified data.

As to claim 2, Rappoport teaches placing the native data and the sub-set of native data on a recordable medium (extracted data ... may be stored on a disk file, p9 50 – p10 14).

As to claim 3, Rappoport teaches the native data comprises data forming a model of an object in the first CAD application (specification data is ... an object's 3-D geometry, p8 53 – p9 2).

As to claims 19-21, note the rejections of claims 1-3 above. Claims 19-21 are functional equivalents of claims 1-3, and thus are rejected with application of the respective teachings in correspondence with the limitations discussed supra.

As to claim 38, note the rejection of claim 1 supra. Claim 38 is functionally equivalent to claim 1, but for the limitation of "without the first CAD application having to export a file containing the object" which is met by Rappoport's API data transfer teachings (p13 37-46) that do not necessarily employ a file for conveying the object.

As to claim 49, see the discussion of claim 1 supra.

As to claims 50, 51 and 53, note the rejections of claims 1, 19 and 49 respectively. Claims 50, 51 and 53 are the same as claims 1, 19 and 49, except claims 50, 51 and 53 are computer program product claims and claims 1, 19 and 49 are apparatus claims.

Art Unit: 2126

6. Claims 4-18, 22-37, 39-48 and 52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappoport as applied to claims 1 and 19 above, and further in view of Kask et al. (U.S. Patent 6,542,937).

As to claim 4, Kask teaches the use of routines from a first library of executable routines (interface may be implemented through the use of a static library of API functions or as a dynamic link library, p14 38-47) to derive the sub-set of native data (transfer of the data in various formats, p27 44-51). It would have been obvious to combine Kask's teachings with Rappoport because the object-oriented methods and data eliminate the need for generic data files (p8 35-55) while facilitating compatibility.

As to claims 5-6, Kask teaches each program "should be linked or use the same library of functions", p14 38-47 which corresponds to the first library of executable routines is embedded within or accessible by the first CAD program.

1.

As to claims 7-9, Kask's (pp13-16) API library teachings would have made obvious the recited library routines for implementing the API functions.

As to claim 10, note the discussion of claim 3 supra.

As to claims 11-15, see the teachings regarding the corresponding claims 5-9 supra.

As to claim 16, Kask teaches the first CAD application receiving a notification of a modification of the object from the second CAD application (functions for sending and receiving the same data ... to the 2-Dprogram, p15 54 – p16 20).

As to claims 17-18, Kask (p10 23-40) teaches the CAD applications communicating with an analysis software and a manufacturing application.

As to claims 22-37, note the rejections of claims 4-18 above. Claims 22-37 are functional equivalents of claims 4-18, and thus are rejected on the same referenced teachings.

As to claims 39-45, note the rejections of claims 4-11 above. Claims 39-45 are functional equivalents of claims 4-11, and thus are rejected on the same referenced teachings.

Art Unit: 2126

As to claims 46-48, note the rejections of claims 8, 10 and 14 respectively. Claims 46-48 are functional equivalents of claims 8, 10 and 14, and thus are rejected on the same referenced teachings.

As to claim 52, note the rejection of claim 46 above. Claim 52 is the same as claim 46, except claim 52 is a computer program product claim and claim 46 is an apparatus claim.

7. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure. Specifically, the below reference(s) will also have relevancy to one or more elements of the Applicant's claimed invention as follows:

U.S. Patent No. 6,847,384 to Sabadell et al. which teaches the object translation for compatibility between diverse format programs;

8. Contact Information:

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private-PAIR or Public-PAIR.

Status information for unpublished applications is available through Private-PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

All responses sent by U.S. Mail should be mailed to:

**Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450**


Hand carried responses should be delivered to the *Customer Service Window* (Randolph Building, 401 Dulany Street, Alexandria, Virginia 22314) and, if submitting an electronic copy on floppy or CD, to expedite its processing, please notify the below identified examiner prior to delivery, so that the Applicant can "handoff" the electronic copy directly to the examiner.

Art Unit: 2126

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(571) 272-2100**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (571) 272-3766 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.



MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100